

CONUS HIGHWAY OPERATIONS



UMODB01

CONUS HWY OPERATIONS

REFERENCES

- **FM 4-01.011 'Unit Movement Operations'**
 - Chapter 3 and Appendix C
 - Defines convoys, convoy organization, convoy identification
- **FM 55-30 "Army Motor Transport Units and Operations":**
 - Chapter 5 and Appendices E and M
 - Convoy control, organization and planning, American Trucking Association Summary of Size and Weight Limits, mobilization movement control
- **FORSCOM/ARNG Reg 55-1**
 - Chapter 7
 - Convoy operations and movement control in CONUS



CONUS HWY OPERATIONS

SCOPE OF LESSON

- Convoy Request and Approval Process
- Convoy Procedures





CONVOY REQUEST AND APPROVAL PROCES

CONUS HWY OPERATIONS

FACILITATING AGENCIES

State Department of Transportation:

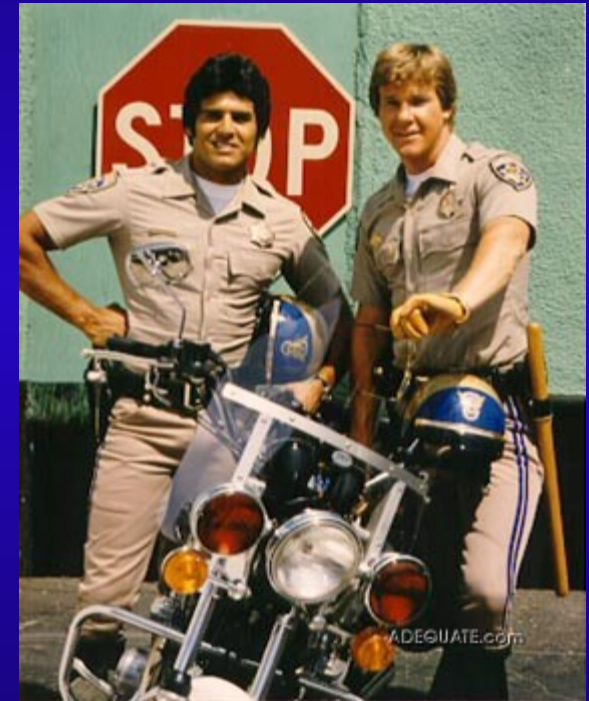
- Set limits and restrictions **for each state concerning vehicle weight, length, width and height to ensure the safety of other highway users and to preclude damage to highways (also bridges, tunnels etc)**
- **DOD policy states that vehicle movement that exceeds legal limitations or regulations, or that subjects highway users to unusual hazards (eg, ammunition transportation), WILL NOT be made without the permission from regulating state or local or authorities**
- **If necessary use other modes (eg, rail) or commercial transporters for over-dimensional/over-weight loads)**

CONUS HWY OPERATIONS

FACILITATING AGENCIES (Cont)

Civilian and Military Police:

- **Coordinated by the UMC**
- **Assist at:**
 - **major intersections**
 - **entrances/exits to interstates, highways etc**
 - **densely populated and industrial areas**
 - **entrances/exits to rest areas (halts)**



Ref: FM 4-01.011, p.C-9

CONUS HWY OPERATIONS

FACILITATING AGENCIES (Cont)

Military Surface Deployment and Distribution Command (SDDC)

- **Commander SDDC is the designated DOD executive agent in public highway matters**
- **Coordinates highway policy & related matters between military & civilian authorities**
- **Takes action to resolve denial of permits**

CONUS HWY OPERATIONS

STATE MOVEMENT CONTROL CENTER (SMCC)

- Located **within** the **Joint Forces Headquarters-State (JFHQ-ST)** in each state and headed up by the **Defense Movement Coordinator (DMC)**
- **Processes** convoy requests
- **Deconflicts** all AC/ARNG/AR convoys using MOBCON (Mobilization Movement Control - computer system used to centrally control convoy movements and create CCN's)
- Provides **interface** between military and civilian (DOT) agencies that control the use of highways, tunnels, & bridges for the coordination of convoy movements

CONUS HWY OPERATIONS

STATE MOVEMENT CONTROL CENTER (SMCC) (Cont)

- **Coordinates** all **AC/ARNG/AR convoys** that originate within their states
 - **Receives DD Form 1265** (Request for Convoy Clearance) and sends back a Convoy Movement Order (CMO)
 - **Receives DD Form 1266** (Special Handling Permit), sends to appropriate civil agencies and then **sends back** the appropriate **Special Hauling Permits** (permit allowing the movement of over-dimensional/over-weight vehicles on public roads)

Ref: FM 55-30, Appendix M-2 and FM 4-01.011, p.3-2

CONUS HWY OPERATIONS

UNIT MOVEMENT COORDINATOR (UMC)

- **Receives request** for convoy clearances and special hauling permits from the unit and staffs them to the SMCC
- Coordinates **installation support** for convoys
- May approve **local convoy requests** for prearranged short routes commonly traveled in the local area (only with the concurrence of the DMC)
- Local CCN's created by the UMC are done manually or through TC ACCIS / TC AIMS II

Ref: FM 55-30, Appendix M-2 and FM 4-01.011, p.3-2

CONUS HWY OPERATIONS

REQUEST PROCESS

Active Component:

- UMO submits **DD Form 1265 (Request for Convoy Clearance)** and **DD Form 1266 (Request for Special Handling Permit)** to the Installation Transportation Office (ITO)
- **Within ITO request staffed by Unit Movement Coordinator (UMC). After request validated passed to State Movement Control Center (SMCC)**
- **Requests must be submitted by the UMC to the SMCC 10 days prior to convoy movement during peacetime)**

CONUS HWY OPERATIONS

REQUEST PROCESS (Cont)

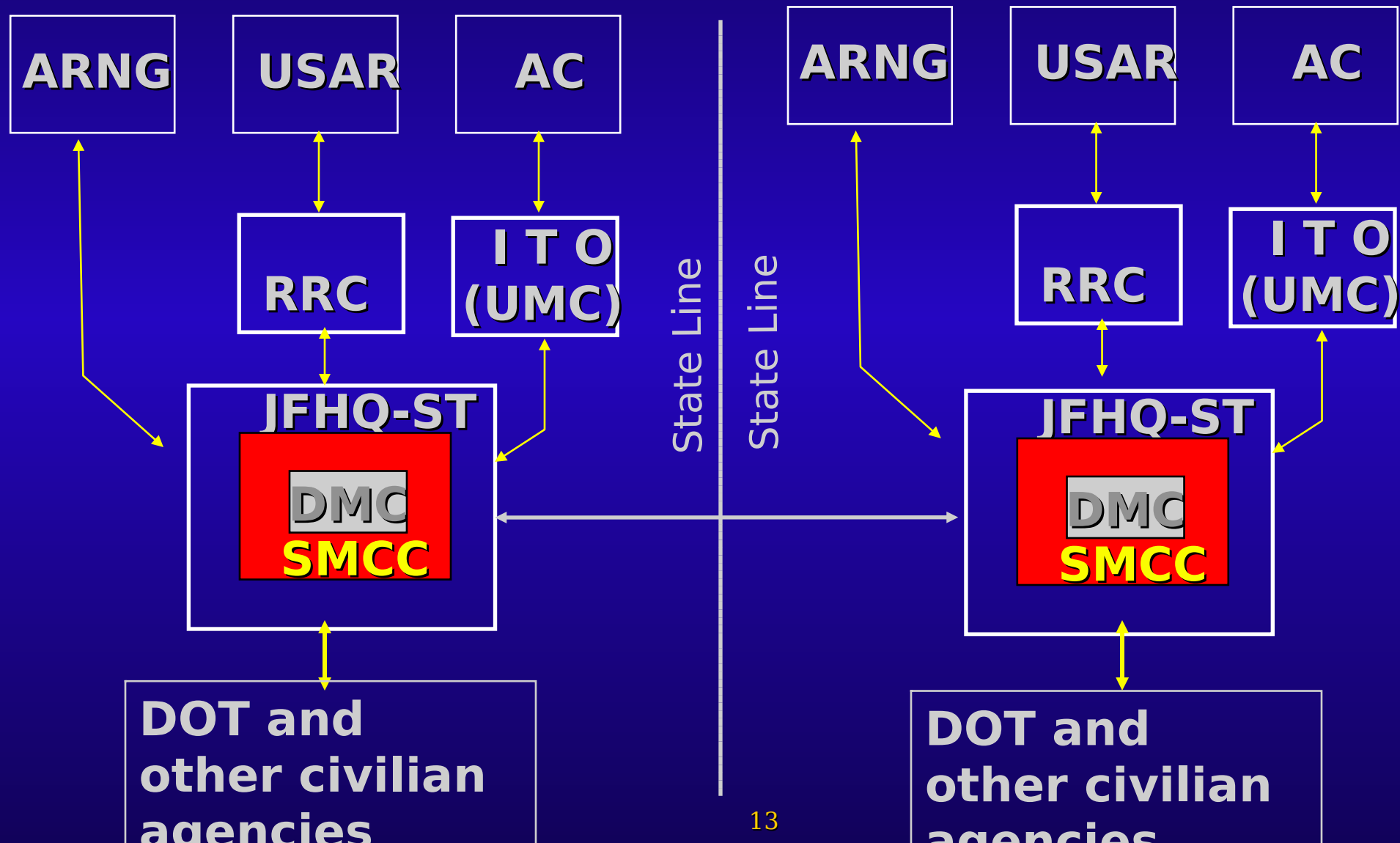
United States Army Reserve:

- **Units staff requests (DD Forms 1265 and 1266) through their Regional Readiness Command (RRC)**
- **After request validated passed to the appropriate SMCC**
- **Requests are to arrive at the SMCC 45 days prior to convoy movement during peacetime**

Army National Guard:

- **Unit staff requests (DD Forms 1265 and 1266) directly to the SMCC**
- **Requests are to arrive at the SMCC 45 days prior to convoy movement during peacetime)**

OVERVIEW OF REQUEST/APPROVAL PROCESS IN CONUS



CONUS HWY OPERATIONS

CONVOY MOVEMENT ORDER (CMO)

- **Returned to unit** from the SMCC **through the UMC**
- Consists of:
 - Convoy details (Paragraph 1)
 - Specific route and time schedule (Paragraph 2)
 - En route reporting requirements (if any) (Paragraph 3)
 - Remarks (Paragraph 4)
- **Routing and times requested** on DD Form 1265 **may differ** to that detailed on the CMO - so check to ensure the CMO meets mission requirements
- CMO is **valid only for the route and time designated** (deviations must be authorized by DMC). May be a ten minute gap between convoys so meeting the CMO timings is critical

CONUS HWY OPERATIONS

CONVOY MOVEMENT ORDER (CMO) (Cont)

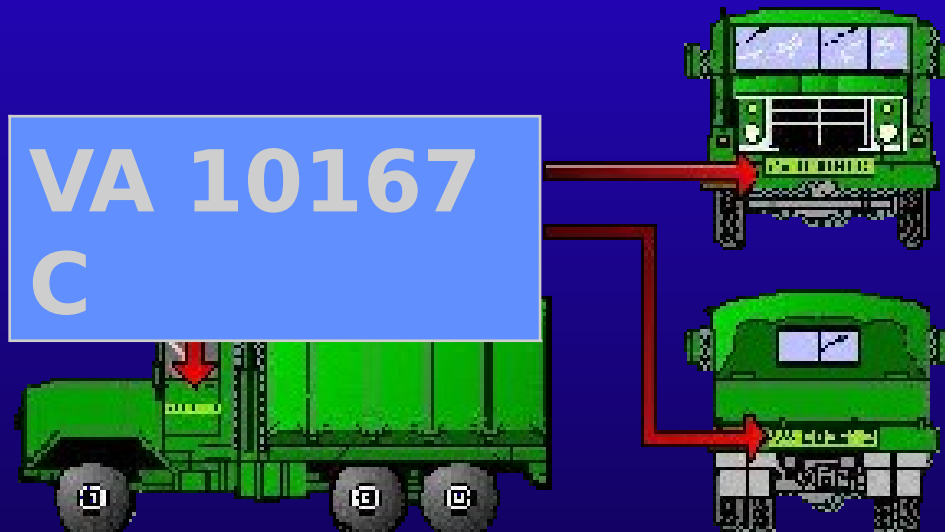
- Contains the **Convoy Clearance Number** (eight characters): identifies the convoy for its entire movement (even if it crosses state lines)
 - **Two letter abbreviation** of the issuing state (eg VA for Virginia)
 - **Five Digit Control Number**: **First digit** represents the year, **next four** digits represents the numerical sequence of CMOs processed by the SMCC for that year
 - A one letter type of **movement designator**
 - * 'S' = outsize/overweight vehicles
 - * 'E' = explosives
 - * 'H' = hazardous cargoes
 - * 'C' = all other convoys

CONUS HWY OPERATIONS

CONVOY CLEARANCE NUMBERS

VA 10167 C

State Designator (Virginia) Control Number (167th request of 2001) Movement Designator (Regular Convoy)



CNNs displayed as follows:

- Both sides of each vehicle
- Front and back of each vehicle (if possible)
- Top of the hood of lead and last vehicles of each march element

WA00378C



CONUS HWY OPERATIONS

MANUALLY PREPARED CCNS

- For **AC units**, the ITO/UMC may provide, with prior coordination with the DMC, a CCN. This number is comprised of **10 digits & 4 sections**:
 - A **2-letter location** (post or state) identifier (where convoy originated)
 - A **4-digit Julian date**
 - A **3-digit sequence** number
 - A **one letter type** movement designator

FE 0059 039
C

These CCN's are created either manually or through TC ACCIS / TC AIMS II

CONUS HWY OPERATIONS

MANUALLY PREPARED CCNS (CONT)

- Example:

The 39th local convoy originating at
Ft Eustis in Virginia on 28 February
2000 will be assigned convoy
number:

FE 0059 039 C

CONUS HWY OPERATIONS

SUMMARY

- **Facilitating Agencies**
- **Request Process for DD Forms 1265 and 1266**
- **Convoy Movement Orders (CMO)**
- **Convoy Clearance Numbers (CCN)**



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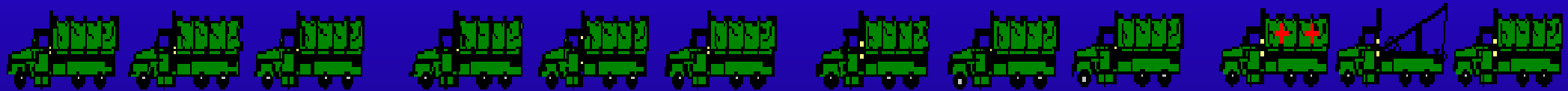


CONVOY PROCEDURES

CONUS HWY OPERATIONS

CONVOY PLANNING

- Convoy planning of a unit's personnel, supplies, and equipment rests with you



- There are many considerations that impact convoy planning and preparation

CONUS HWY OPERATIONS

MOTOR CONVOY DEFINITION

- **Group of military vehicles** organized for the purpose of **control** and **orderly movement**. Defined as:
 - Any **group of six (6) or more** vehicles proceeding together under the control of a single commander
 - **10 or more vehicles per hour** dispatched to the same destination using the same route
 - Any **one vehicle** that requires a **Special Hauling Permit** (DD Form 1266)

CONUS HWY OPERATIONS

CONVOY ORGANIZATIONAL ELEMENTS

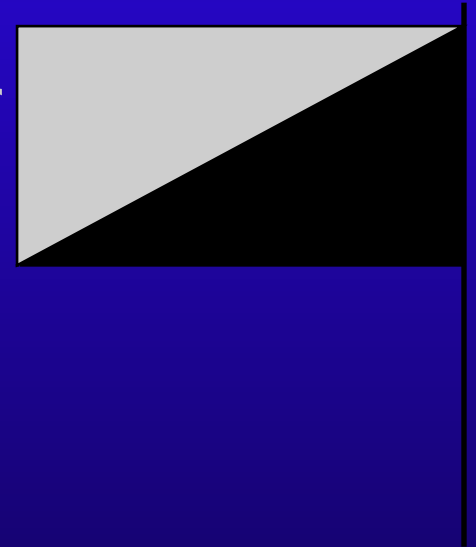
- A convoy commander can better control a convoy if it is **broken down into smaller, more manageable groups**. Convoys consist of **3 organizational elements**:

1. March Column / Convoy Commander

2. Serial / Serial Commander

3. March Unit / March Unit Commander

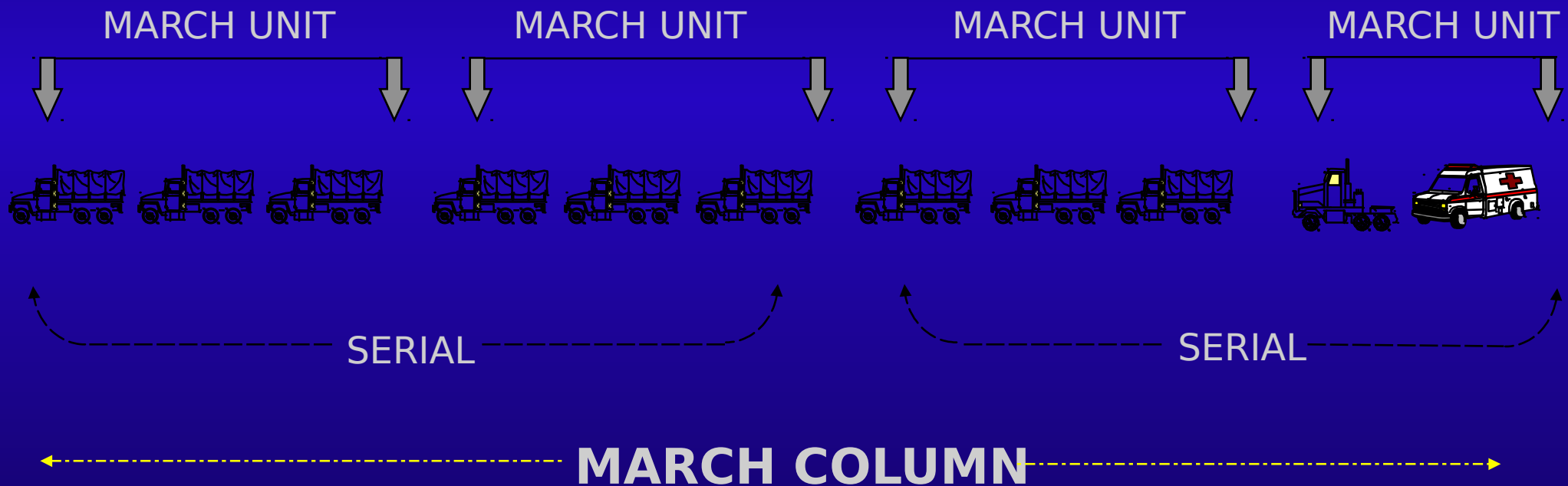
- If possible, convoys are organized along organizational lines (battalion, company, platoon)



CONUS HWY OPERATIONS

CONVOY ORGANIZATIONAL ELEMENTS (CONT)

(usually ≤ 20 vehs)

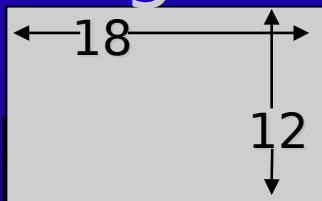


CONUS HWY OPERATIONS

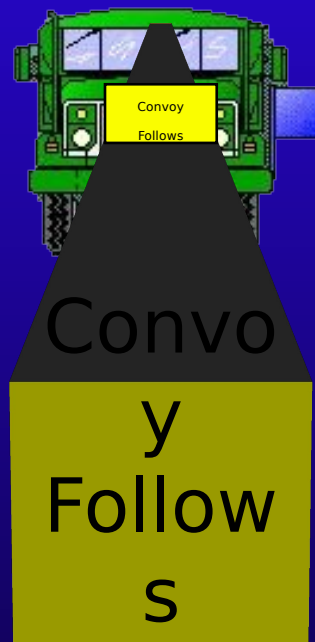
CONVOY IDENTIFIERS

- Flags must be displayed on left side of vehicles front or rear

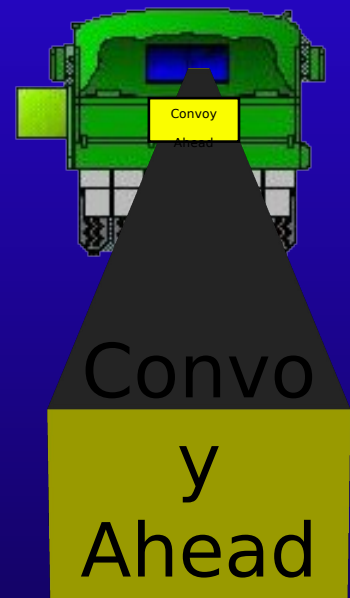
- Commander's flag



- Size of convoy flags



Lead blue flag
Rear green flag





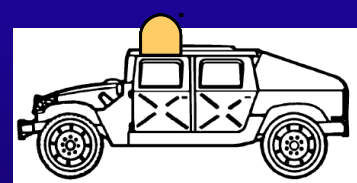
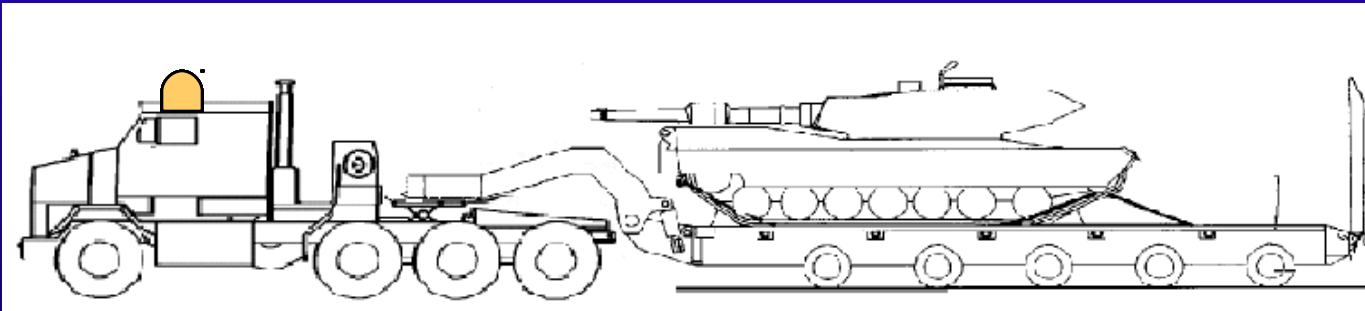
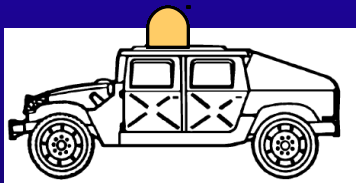
CONVOY FOLLOWS

WAGON
KINGPIN

CONUS HWY OPERATIONS

CONVOY IDENTIFIERS (CONT)

- Rotating **amber warning light** placed on oversize or overweight vehicles **and the first and last** vehicles (usually the escort vehicles) in their march element



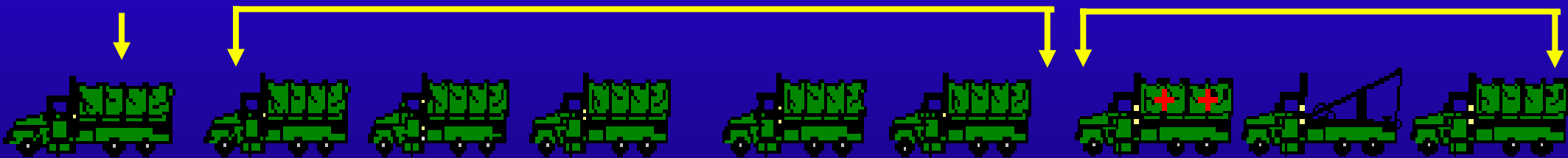
CONUS HWY OPERATIONS

THREE FUNCTIONAL ELEMENTS OF A CONVOY

(Pacesetter)
Head

Main Body

Trail



CONUS HWY OPERATIONS

HEAD

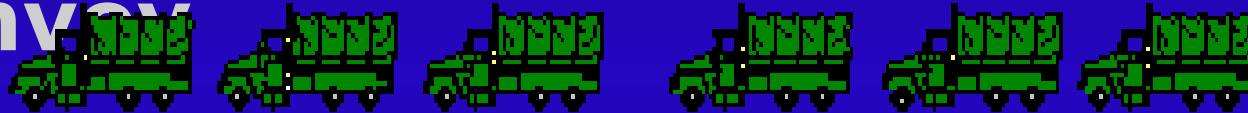
- The head is the **first vehicle** of each column, serial or march unit - **normally slowest/heaviest** vehicle (excluding oversize/overweight vehicles)
- The head carries the **Pacesetter**, who is responsible for:
 - Maintaining the rate of march set by the convoy commander (eg 45 mph)
 - Meeting set times at SP, RP and all CPs
 - Keeping the convoy on the proper route
 - Informing the convoy commander of any obstacles or hazards that may cause a deviation from the set route (such as road construction etc)

Ref: FM 4-01.0.11, pp.C-8

CONUS HWY OPERATIONS

MAIN BODY

- Largest part of
convoy



Follows pacesetter

Typically divided into serials & march units (each with own pacesetter) for easier control & management

CONUS HWY OPERATIONS

TRAIL VEHICLES CONSIST OF
THE FOLLOWING:



**FUEL
VEHICLE**

AMBULANCE



BOBTAIL

WRECKER



CONUS HWY OPERATIONS

TRAIL OFFICER

- At **rear** of march element
- Responsible for:
 - Checks and observes vehicles at **SP**
 - Keeps **convoy commander informed** of status of vehicles that fall out of the convoy (stragglers)
 - **Oversees** all maintenance, recovery, accident investigation, medical aid, and disposition of disabled equipment
 - **Picks up guides** (used in areas where road signs are poor or non-existent) and markers left by preceding march elements



CONUS HWY OPERATIONS

CONVOY DOCUMENTATION



Here is the
convoy
documentation
you
requested, boss

DD Form 1265 - Request for Convoy Clearance

REQUEST FOR CONVOY CLEARANCE		1. CONVOY NUMBER	2. UIC	3. DATE(YYYYMMDD)
SECTION I - GENERAL				
4. ORGANIZATION		5. STATION		6. CONVOY COMMANDER
7. PERSONNEL STRENGTH		8. POINT OF ORIGIN		9. DESTINATION
a. OFFICER	b. ENLISTED			
10. DATE AND TIME	a. DEPARTURE	b. ARRIVAL	11. RATE OF MARCH	
SECTION II - CONVOY COMPOSITION				
12. NUMBER OF EACH TYPE OF VEHICLE AND DESCRIPTION (Include towed equipment)				
13. TOTAL NUMBER OF VEHICLES	14. NUMBER OF OVERSIZE/ OVERWBGHT VEHICLES	15a. NO. OF SERIALS	b. TIME INTERVAL	16a. NO. OF MARCH UNITS
				b. TIME INTERVAL
SECTION III - ROUTE DATA				
17. PROPOSED ROUTING (Indicate US Routes, State Routes, etc.)				
18. ETA AND ETD AT STATE LINES, MAJOR ROAD JUNCTIONS, MAJOR BRIDGES AND TUNNELS, METROPOLITAN AREAS AND OVERNIGHT HALT SITES (Continue on a separate sheet if additional space is required)				
a. LOCATION	b. ETA	c. DATE (YYYY MMDD)	d. ETD	e. DATE (YYYY MMDD)
SECTION IV - LOGISTICAL DATA				
19. BRIEF GENERAL DESCRIPTION OF CARGO (Brief general description; i.e., organizational impediments, etc.) (Within security limitations)				

[illegible]

CONUS HWY OPERATIONS

DD Form 1266 - Request for Special Hauling Permit

REQUEST FOR SPECIAL HAULING PERMIT				1. CONVOY NUMBER	2. UIC	3. DATE (YYYYMMDD)	
SECTION I - GENERAL							
4. ORGANIZATION		5. STATION		6. DATE OF MOVEMENT (YYYYMMDD)			
				a. STARTING b. COMPLETION			
7. POINT OF ORIGIN		8. DESTINATION					
9. ARRIVAL AT STATE LINES		10. ROUTING (Stipulate US Routes, State Routes, etc.)					
a. DATE (YYYYMMDD)		b. TIME		c. STATE LINE			
11. ESCORT REQUIREMENTS							
SECTION II - VEHICLE AND LOAD DATA							
DESCRIPTION a.	TYPE (2-ton, etc.) b.	NO. OF VEHICLES c.	REGISTRATION NUMBER d.	HEIGHT e.	WIDTH f.	LENGTH g.	WEIGHT h.
12. VEHICLE							
(1) TRUCK							(Empty)
(2) TRUCK-TRACTOR							(Empty)
(3) TRAILER							(Empty)
(4) SEMI-TRAILER							(Empty)
(5) OTHER (Specify)							(Empty)
13. LOAD							
14. OVERALL (Vehicle and load)							
15. DESCRIPTION OF LOAD (Brief general description: Organization impediments, etc.) (Within security limitations)							
16. LOAD OVERHANG							
a. FRONT	b. REAR	c. LEFT SIDE	d. RIGHT SIDE				

DD FORM 1266, SEP 1998 (EG) PREVIOUS EDITION IS OBSOLETE. Designed using PerformPro, WWS/DIOR, Sep 98

Front

17. NUMBER OF AXLES	1 A	2 B	1 C	D	E	F	G	H	
	AXLE 1 a.	AXLE 2 b.	AXLE 3 c.	AXLE 4 d.	AXLE 5 e.	AXLE 6 f.	AXLE 7 g.	AXLE 8 h.	TOTAL i.
18. NUMBER OF TIRES									
19. TIRE WIDTH (Inches)									
20. TIRE SIZES									
21. AXLE LOAD (Empty)									
22. AXLE LOAD (Loaded)									
23. AXLE SPACING (See Item 17 for identification)	A SPACING	B SPACING	C SPACING	D SPACING	E SPACING	F SPACING	G SPACING	H SPACING	
24. REMARKS									
25. MOVEMENT BY HIGHWAY IS									
<input type="checkbox"/> ESSENTIAL TO NATIONAL DEFENSE <input type="checkbox"/> IN THE INTEREST OF NATIONAL DEFENSE									
26. REQUESTING AGENCY					27. APPROVING AGENCY				
28. REQUESTED BY					29. APPROVED BY				
a. NAME (Last, First, Middle Initial)					a. NAME (Last, First, Middle Initial)				
b. GRADE c. TITLE					b. GRADE c. TITLE				
d. SIGNATURE					e. DATE (YYYYMMDD)		d. SIGNATURE e. DATE (YYYYMMDD)		
INSTRUCTIONS									
GENERAL: DD Form 1266, "Request for Special Hauling Permit" will be used to obtain special hauling permits for the movement of over-size/overweight vehicles over public highways when accompanying a convoy or when traveling separately. This form, in duplicate and accompanied by letter of transmittal, will be forwarded through the local transportation officer so as to reach the appropriate headquarters not less than ten (10) working days prior to the starting date of the movement. Letters of transmittal will contain complete itinerary and explanation of the movement. One (1) letter of transmittal is sufficient when several DD Forms 1265 and 1266 involving one (1) movement are forwarded to the appropriate headquarters. In cases where bona-fide emergencies exist, the information contained in this form and DD Form 1265 may be transmitted to the appropriate headquarters by telephone or electronic transmission. In this event, reference will be made to item numbers in the sequence in which they appear on the forms. Items which do not apply will be so indicated.					SPECIFIC: Item 12 a, b, c, and d. - Complete nomenclature of vehicles involved. More than one unit may be included, provided units are identical in equipment, load characteristics, routing and movement date. Total number of units shall be indicated prominently. Item 12 e. - Note all units other than standard highway vehicles; road equipment, guns, etc. Item 12 d. - Indicate the registration number for each unit or combination of units. Use additional page if required. Item 17 - Indicate appropriate number of axles by inserting number in proper circles. Block out circles not applicable. Item 24 - For movement through the District of Columbia, include name of manufacturer of equipment.				

DD FORM 1266 (BACK), SEP 1998

Back

CONUS HWY OPERATIONS

DD Form 626: Motor Vehicle Inspection (Transporting Hazardous Materials)

- Vehicles must be inspected, deficiencies corrected & DD Form 626 completed before hazardous material is loaded

MOTOR VEHICLE INSPECTION (TRANSPORTING HAZARDOUS MATERIALS)												
<small>(Read instructions before completing this form.)</small>												
This form applies to all vehicles which must be marked or placarded in accordance with Title 49 CFR.												
1. GOVERNMENT BILL OF LADING/TRANSPORTATION CONTROL NUMBER												
SECTION I - DOCUMENTATION				ORIGIN a.				DESTINATION b.				
2. CARRIER GOVERNMENT ORGANIZATION												
3. DATE/TIME OF INSPECTION												
4. LOCATION OF INSPECTION												
5. OPERATOR(S) NAME(S)												
6. OPERATOR(S) LICENSE NUMBER(S)												
7. MEDICAL EXAMINER'S CERTIFICATE*												
8. (X if satisfactory at origin)								9. CSA DECAL DISPLAYED ON COMMERCIAL EQUIPMENT*				
a. MILITARY HAZMAT ENDORSEMENT				d. ERG OR EQUIVALENT COMMERCIAL:				YES NO				
b. VALID LEASE*				e. DRIVER'S VEHICLE INSPECTION REPORT*				a. TRUCK/TRACTOR				
c. ROUTE PLAN				f. COPY OF 49 CFR PART 397				b. TRAILER				
SECTION II - MECHANICAL INSPECTION												
<small>All items shall be checked on empty equipment prior to loading. Items with an asterisk shall be checked on all incoming loaded equipment.</small>												
10. TYPE OF VEHICLE(S)				11. VEHICLE NUMBER(S)								
12. PART INSPECTED (X as applicable)				ORIGIN (1)		DESTINATION (2)		ORIGIN (3)		DESTINATION (4)		COMMENTS (5)
				SAT UNSAT		SAT UNSAT		SAT UNSAT		SAT UNSAT		
a. SPARE ELECTRICAL FUSES								k. EXHAUST SYSTEM				
b. HORN OPERATIVE								l. BRAKE SYSTEM*				
c. STEERING SYSTEM								m. SUSPENSION				
d. WINDSHIELD/WIPERS								n. COUPLING DEVICES				
e. MIRRORS								o. CARGO SPACE				
f. WARNING EQUIPMENT								p. LANDING GEAR*				
g. FIRE EXTINGUISHER*								q. TIRES, WHEELS, RIMS				
h. ELECTRICAL WIRING								r. TAILGATE/DOORS*				
i. LIGHTS AND REFLECTORS								s. TARPULIN*				
j. FUEL SYSTEM*								t. OTHER (Specify)				
13. INSPECTION RESULTS (X one)				ACCEPTED				REJECTED				
<small>(If rejected give reason under "Remarks". Equipment will be approved if deficiencies are corrected prior to loading.)</small>												
14. SATELLITE MOTOR SURVILLANCE SYSTEM: (X one)				ACCEPTED				REJECTED				
15. REMARKS												
16. INSPECTOR SIGNATURE (Origin)						17. INSPECTOR SIGNATURE (Destination)						
SECTION III - POST LOADING INSPECTION												
<small>This section applies to Commercial and Government/Military vehicles. All items will be checked prior to release of loaded equipment and shall be checked on all incoming loaded equipment.</small>												
18. LOADED IAW APPLICABLE SEGREGATION/COMPATIBILITY TABLE OF 49 CFR				ORIGIN (1)		DESTINATION (2)		ORIGIN (3)		DESTINATION (4)		COMMENTS (5)
				SAT UNSAT		SAT UNSAT		SAT UNSAT		SAT UNSAT		
19. LOAD PROPERLY SECURED TO PREVENT MOVEMENT												
20. SEALS APPLIED TO CLOSED VEHICLE; TARPULIN APPLIED ON OPEN EQUIPMENT												
21. PROPER PLACARDS APPLIED												
22. SHIPPING PAPERS/DD FORM 836 FOR GOVERNMENT VEHICLE SHIPMENTS												
23. COPY OF DD FORM 626 FOR DRIVER												
24. SHIPPED UNDER DOT EXEMPTION 868												
25. INSPECTOR SIGNATURE (Origin)				26. DRIVER(S) SIGNATURE (Origin)								
27. INSPECTOR SIGNATURE (Destination)				28. DRIVER(S) SIGNATURE (Destination)								

DD Form 836

Dangerous Goods Shipping Paper/Declaration and Emergency Response Information for Hazardous Materials Transported by Government Vehicles/Containers or Vessel

1. NOMENCLATURE: MODEL NO.:		TCN NUMBER: SERIAL NO.:		BUMPER NO.:	
SHIPPING PAPER AND EMERGENCY RESPONSE INFORMATION FOR HAZARDOUS MATERIALS TRANSPORTED BY GOVERNMENT VEHICLES					
THIS VEHICLE IS TRANSPORTING HAZARDOUS MATERIALS					
2a. LOCATION AND DATE PREPARED		b. DATE OF TRAVEL		c. PAGE OF PAGES	
TO BE COMPLETED BY THE UNIT OR SHIPPER T.O. OFFICE.					
3. CARGO					
PACKAGES		PROPER SHIPPING NAME (Include RQ, Technical Names, Additional Information per §172.203 as required.)		HC	UN OR ID NO.
NUMBER a.	KIND b.	c.		d.	e.
4. EMERGENCY NOTIFICATION. IN ALL CASES OF ACCIDENT, INCIDENT, BREAKDOWN OR FIRE, PROMPT NOTIFICATION MUST BE GIVEN TO:					
a. SHIPPER'S ADDRESS AND TELEPHONE NO. (List 24-hour telephone numbers):			b. CONSIGNEE		
FOR SAFE HAVEN/REFUGE, IMMEDIATELY CALL APPROPRIATE MTMC AREA HOTLINE LISTED BELOW:					
EASTERN/WESTERN UNITED STATES: 1-800-524-0331 NEW JERSEY ONLY: 1-800-642-1381					
24-HOUR EMERGENCY ASSISTANCE TELEPHONE NUMBERS					
DOD NON-EXPLOSIVE HAZARDOUS MATERIALS ONLY: 1-800-851-8061		DOD HAZARDOUS MATERIALS ONLY: 1-800-851-8061		NATIONAL RESPONSE CENTER (NRC) 1-800-424-8802 TO CALL FROM A SHIP: 202-267-2675 (COLLECT)	
TO CALL FROM A SHIP: 804-279-3166 (COLLECT)		ASK FOR THE WATCH OFFICER		DOD RADIOACTIVE MATERIAL ONLY - COLLECT: 309-782-3510 ASK FOR STAFF DUTY OFFICER	
4c. COPY OF EMERGENCY GUIDE NUMBER(S) ATTACHED.					
5. REMARKS					
6. CERTIFICATION THIS IS TO CERTIFY THAT THE HEREIN NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND					

EMERGENCY RESPONSE INFORMATION	
Guide Numbers 112 and 114 from the U.S. Department of Transportation North American Emergency Response Guide Book (RSPA P 5800.7) are reproduced hereon. These guides are applicable to Hazard Class 1 Materials (Explosives). Mark an X in the appropriate box:	
<input checked="" type="checkbox"/> USE GUIDE 112 FOR EXPLOSIVES: (1.1), (1.2), (1.3), (1.5) or (1.6) Class A or B	<input type="checkbox"/> USE GUIDE 114 FOR EXPLOSIVES: (1.4) Class C
For all other hazardous materials or substances, annotate appropriate Emergency Response Guide Book Guide Number in the block below, and attach a copy of the guide number page or pages.	
GUIDE 112	GUIDE 114
POTENTIAL HAZARDS FIRE OR EXPLOSION: MAY EXPLODE AND THROW FRAGMENTS 1600 METERS (1 MILE) OR MORE IF FIRE REACHES CARGO. HEALTH HAZARDS: Fire may produce irritating, corrosive and/or toxic gases. PUBLIC SAFETY: CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, CALL CHEMTREC AT 1-800-424-9300. - Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions. Move people out of line of sight of the spill or leak area. - Keep unauthorized personnel away and stay upwind. - Ventilate closed spaces before entering. PROTECTIVE CLOTHING: - Wear positive pressure self-contained breathing apparatus (SCBA), and Structural firefighters' protective clothing will only provide limited protection. EVACUATION: LARGE SPILL Consider initial evacuation for 800 meters (1/2 mile) in all directions. FIRE - If rail car or trailer is involved in a fire and heavily encased explosives such as bombs or artillery projectiles are suspected, ISOLATE for 1600 meters (1 mile) in all directions; also, initiate evacuation including emergency responders for 1600 meters (1 mile) in all directions. - When heavily encased explosives are not involved, evacuate the area for 800 meters (1/2 mile) in all directions. EMERGENCY RESPONSE: FIRE CARGO FIRE: DO NOT FIGHT FIRE WHEN IT REACHES CARGO! CARGO MAY EXPLODE! - Stop all traffic and clear the area for at least 1600 meters (1 mile) in all directions and let burn. Do not move cargo or vehicle if cargo has been exposed to heat. TIRE or VEHICLE FIRE: - Use plenty of water - FLOOD IT! If water is not available, use CO2, dry chemical or dirt. If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area. - Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready. SPILL OR LEAK: - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). - All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. - DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 METERS (330 feet) OF ELECTRIC DETONATORS. - DO NOT CLEAN UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST. FIRST AID: - Move victim to fresh air. Call emergency medical care. - Apply artificial respiration if victim is not breathing. - Administer oxygen if breathing is difficult. - Remove and isolate contaminated clothing and shoes. - In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. - Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. SUPPLEMENTAL INFORMATION Packages bearing the 1.4S label contain explosive substances or	POTENTIAL HAZARDS FIRE OR EXPLOSION: MAY EXPLODE AND THROW FRAGMENTS 500 METERS (1/3 MILE) OR MORE IF FIRE REACHES CARGO. HEALTH HAZARDS: Fire may produce irritating, corrosive and/or toxic gases. PUBLIC SAFETY: CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, CALL CHEMTREC AT 1-800-424-9300. - Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions. Move people out of line of sight of the spill or leak area. - Keep unauthorized personnel away and stay upwind. - Ventilate closed spaces before entering. PROTECTIVE CLOTHING: - Wear positive pressure self-contained breathing apparatus (SCBA), and Structural firefighters' protective clothing will only provide limited protection. EVACUATION: LARGE SPILL Consider initial evacuation for 250 meters (800 feet) in all directions. FIRE - If rail car or trailer is involved in a fire, ISOLATE for 500 meters (1/3 mile) in all directions; also, initiate evacuation including emergency responders for 500 meters (1/3 mile) in all directions. CARGO FIRE: DO NOT FIGHT FIRE WHEN IT REACHES CARGO! CARGO MAY EXPLODE! - Stop all traffic and clear the area for at least 500 meters (1/3 mile) in all directions and let burn. Do not move cargo or vehicle if cargo has been exposed to heat. TIRE or VEHICLE FIRE: - Use plenty of water - FLOOD IT! If water is not available, use CO2, dry chemical or dirt. If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area. - Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready. SPILL OR LEAK: - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). - All equipment used when handling the product must be grounded. 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FORSCOM Form 285-R: Vehicle Load Card

VEHICLE LOAD CARD							
UNIT/LIC		VEH UN/D		NMEN/MD/ND		SECT/PLT/ASCD	
SHIPMENT NO.		UNIT		DATE COMPILED			
LENGTH OF VEH		WIDTH OF VEH		HEIGHT OF VEH		VEH EMPTY WT	
OPERATIONAL	REDUCED	OPERATIONAL	REDUCED	OPERATIONAL	REDUCED		
CARD/C AREA				CARD/C AREA CL/BIC FT			
LENGTH		WIDTH		HEIGHT		REDUCED	
NOT COMPUTED FOR LBS TONS				TEST LOAD VERIFIED BY		DATE	
CR/CIS		INCHES FROM					
CARD COMPARTMENT VIEW							
<div style="position: relative; height: 300px;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 100px; color: red; font-weight: bold;">Front</div> <div style="position: absolute; right: 0; top: 50%; transform: translateY(-50%); writing-mode: vertical-rl; transform: rotate(180deg); font-size: 10px;">FRONT OF VEHICLE</div> </div>							
CARD LOC NO	CARD DESCRIPTION & TYPE/PACK			NO OF ITB'S	PC CL/BIC FT	TOTAL CL/BIC FT	PC WT
LOAD PLUS VEHICLE WT				TOTAL GROSS WT AND UN/D OF DRIVER			

FORS COM Form 285R, 1 Mar 93

EDITION OF 1 AUG 80 MAY BE USED

5-1/2X8-1/2

CARGO LOC NO	CARGO DESCRIPTION & TYPE/PACK	NO OF ITEMS	PC CU BIC FT	TOTAL CU BIC FT	PC WT	TOTAL WT
1						
WEIGHT OF BBPCT MATERIALS						
TOTALS +						
NUMBERS OF DD FORM 1750 (PACKING LIST) THIS LOAD =						
REMARKS (List of BBPCT materials needed for this load, to include weight)						

Back

CONUS HWY OPERATIONS

DA Form 5748-R

Shipment Unit Packing List and Load Diagram

SHIPMENT UNIT PACKING LIST AND LOAD DIAGRAM For use of this form see REG-55, the proper agency is: TH-300			FOR: <input type="checkbox"/>		
1. OFFICE/BLK		2. LOCATION/BLK	3. TO/COMBAT/BLK		
4. SHIPMENT UNIT/BLK			5. DISPATCH		
6. LBS/BLK	7. LBS/BLK	8. HRS/BLK	9. LOAD/BLK/BLK		
10. LBS/BLK	11. HRS/BLK	12. LBS/BLK/BLK			
13. REMARKS					
CONTO LOC. NO. C	CONTO (Description of item/unit) B	TYPE BLK C	BLK BLK C	BLK BLK/BLK C	TOTAL TWO BLK/BLK C

Front

14. LOAD/BLK/BLK (Description of item/unit)

Back

CONUS HWY OPERATIONS

LOGISTICS REQUIREMENTS

- Command Responsibility
- All logistical requirements should be **arranged prior to convoy movement** (see Convoy Commander's Checklist at pp.C-17/19), and could include:
 - Maintenance
 - Billeting
 - Escorts
 - Medical
 - Refueling (limitations of equipment)

CONUS HWY OPERATIONS

COMMUNICATIONS

- **Radio** principal means (consider placement, distance, orders)
- **Visual** Communication: Hand and arm signals, flags, headlights, message boards
- **Audio** Signals: Horns, whistles, loudspeakers



CONUS HWY OPERATIONS

SAFETY

- Safety concerns:
 - Drivers and leaders **obey signals** and orders
 - Proper safety **awareness** and enforcement
 - Vehicles **maintain pace**
 - Proper **interval** maintained ('4 second rule')



CONUS HWY OPERATIONS

SAFETY (CONT)



- **Headlights** of all vehicles on **low beam** at all times (including when halted on road shoulders)
- When halted on road shoulders, vehicles equipped with **emergency flasher** systems must also have these lights operating
- When moving **at night** or during periods of reduced visibility, lead, trail, and oversize/overweight vehicles will operate ⁴⁵hazard lights

Ref: FM 4-01.011, p.C-13

CONUS HWY OPERATIONS

SAFETY (CONT)



Ref: FM 4-01.011, p.C-13

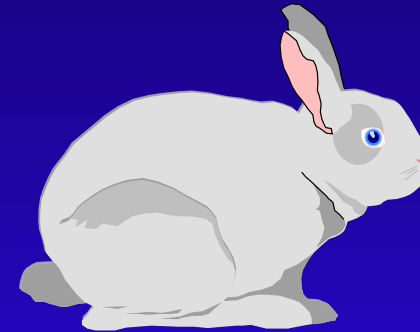
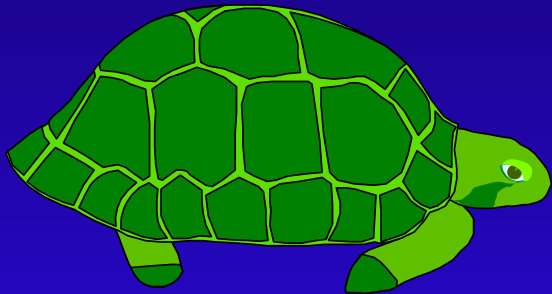
Each vehicle **must have**:

- A fire extinguisher suitable for a petroleum fire
- A first aid kit
- A set of tire chains (when snow or ice conditions may be encountered)
- A highway warning kit

CONUS HWY OPERATIONS

CONVOY CONTROL MEASURES

SPEED



Convoy Speed: eg 45 mph

Catchup Speed: eg 50 mph

SPACING



Vehicle interval: eg 100 yards



Time gap between march elements: eg 10 mins

CONUS HWY OPERATIONS

Which convoy is correctly spaced?







04 13 03
14 03

CONVOY FORMATIONS

Close Column

- Vehicle intervals: 25 - 50 meters
- Speed: < 25mph
- Greatest degree of control
- Used in limited visibility,



Open Column

- Vehicle intervals: 100 meters +
- Speed: > 25mph
- Preferred formation
- Used on well marked open



Both are correctly spaced!

Infiltration: No defined structure, variable intervals and speed. Not normally used except as last resort in extremely congested areas or when the mission dictates

CONVOY ROUTE PLANNING



CONUS HWY OPERATIONS

ROUTE RECONNAISSANCE

- Not limited to tactical operations
 - Must be done prior to any convoy movement
 - Type of reconnaissance dependent on time and resources available
- Three types:
 - Map reconnaissance
 - Ground reconnaissance
 - Air reconnaissance
- Permanent Reconnaissance Record (conducted by qualified personnel) may be available from the ITO for commonly traveled routes



CONUS HWY OPERATIONS

MAP RECONNAISSANCE

- Should always be **conducted prior** to a highway movement
- Much information can be obtained from maps including:
 - Road surface
 - Type of terrain
 - Obstacles
 - Critical points
 - Distances



CONUS HWY OPERATIONS

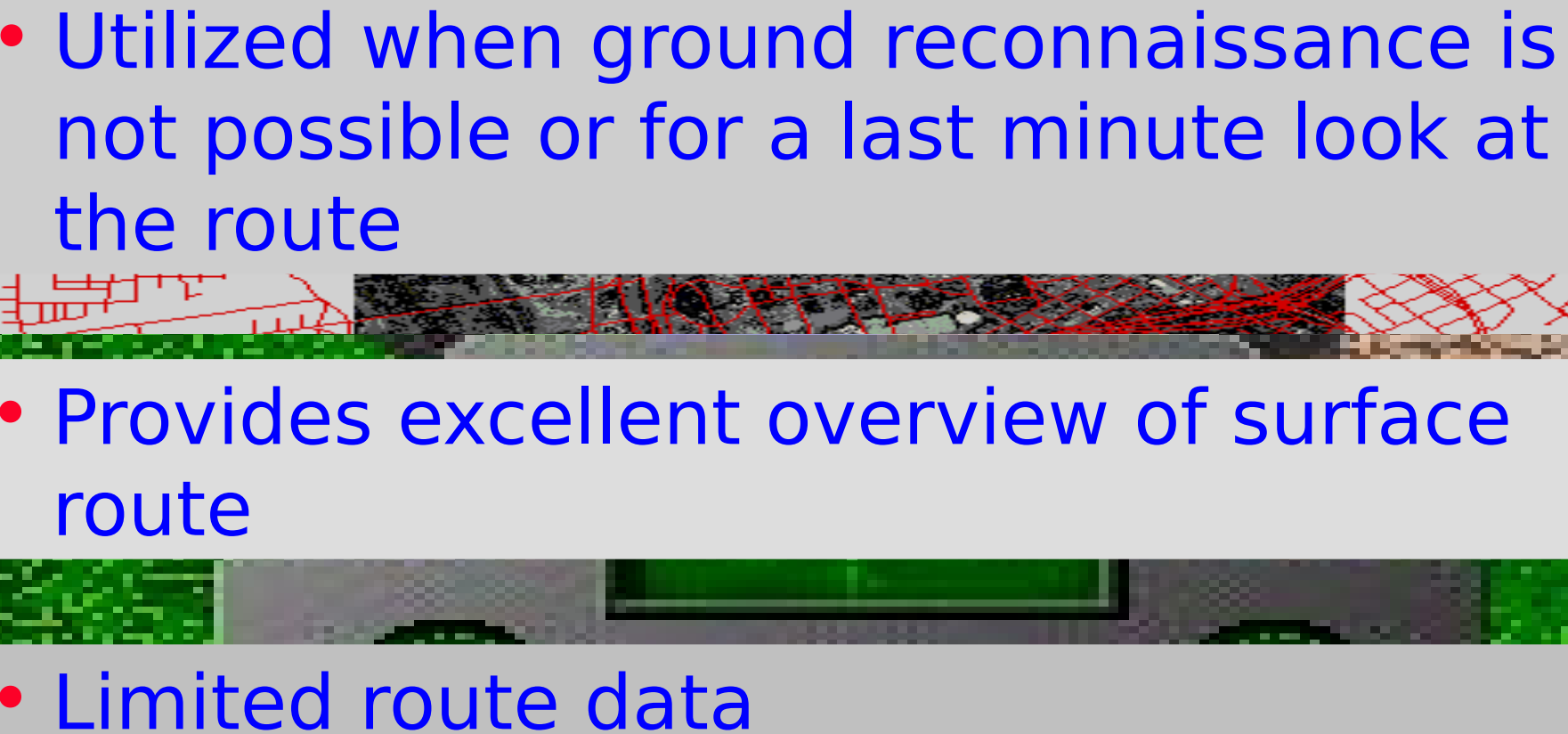
GROUND RECONNAISSANCE

- Should be conducted as soon as map reconnaissance is complete
- Most effective type of reconnaissance
- Provides 'real' information



CONUS HWY OPERATIONS

AERIAL RECONNAISSANCE

- 
- The background of the slide is a composite image. The top half shows a grayscale aerial photograph of a road network, overlaid with a red wireframe grid. The bottom half shows a color aerial photograph of a road, with a green rectangular box highlighting a specific section of the road.
- Utilized when ground reconnaissance is not possible or for a last minute look at the route
 - Provides excellent overview of surface route
 - Limited route data

CONUS HWY OPERATIONS

START POINT (SP)

- Convoy commander assumes active control of march column at the start point (SP)
- Convoy passes start point at established rate of march and vehicle interval.
- Start point should be a point on the route that is easily recognizable on both a map and the ground

CONUS HWY OPERATIONS

RELEASE POINT (RP)

- Released from active control of convoy commander (set rate of march and vehicle interval) after passing through the RP
- A common point from which the vehicles in a march column with different destinations can be released to continue their assignments
- Unit guides meet their units at the RP & lead them to their designated area
- The RP should be easily recognizable on both a map and the ground

CONUS HWY OPERATIONS

CHECKPOINTS (CP)

- Designated checkpoints (CP) along the route are an effective method of convoy control
- Checkpoints should be easily recognizable features and are numbered sequentially
- Checkpoints should correspond to checkpoints on strip map given to each driver
- Checkpoints are used to report the convoy location to command & control headquarters

CONUS HWY OPERATIONS

CRITICAL POINTS

- Critical points that may **slow convoy progress** should be considered by the convoy commander. They include:
 - Toll roads
 - Bridges
 - Overpasses / Underpasses
 - Constrictions
 - Sharp turns



Ref: FM 4-01.011, p.C-5

CONUS HWY OPERATIONS

HALTS

- Halt locations should be selected in advance
- Used for rest, refueling, mess and maintenance
- Rest halts scheduled for 15 minutes end of the first hour & 10 minutes every two hours thereafter
- Key points for rest halts:
 - Check on loads during rest halts
 - Refuel at meal halts if necessary

CONUS HWY OPERATIONS

ROUTE CONSIDERATIONS

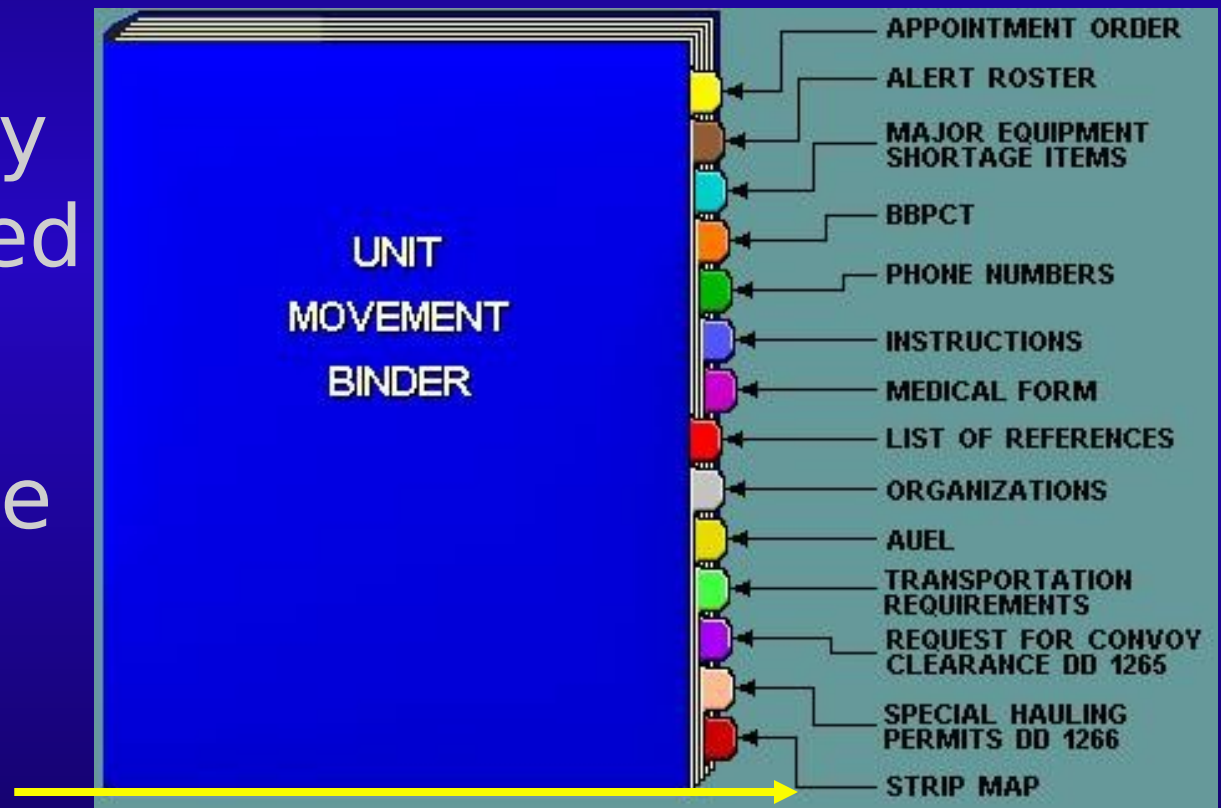
- An **alternate route** should be identified
- Location of medical facilities & telephones should be noted



CONUS HWY OPERATIONS

STRIP MAPS

- Strip maps are issued to each driver & other key personnel involved with the convoy
- Strip maps can be included as an appendix to the unit movement plan



CONUS HWY OPERATIONS

STRIP MAP PREPARATION

- A strip map is a graphic representation of the route the convoy will travel
- The strip map need not be drawn to scale, but **must include the following elements:**

Start point

Major cities & towns

Release point

Critical points & check points

Rest/halt areas

Distance between checkpoints

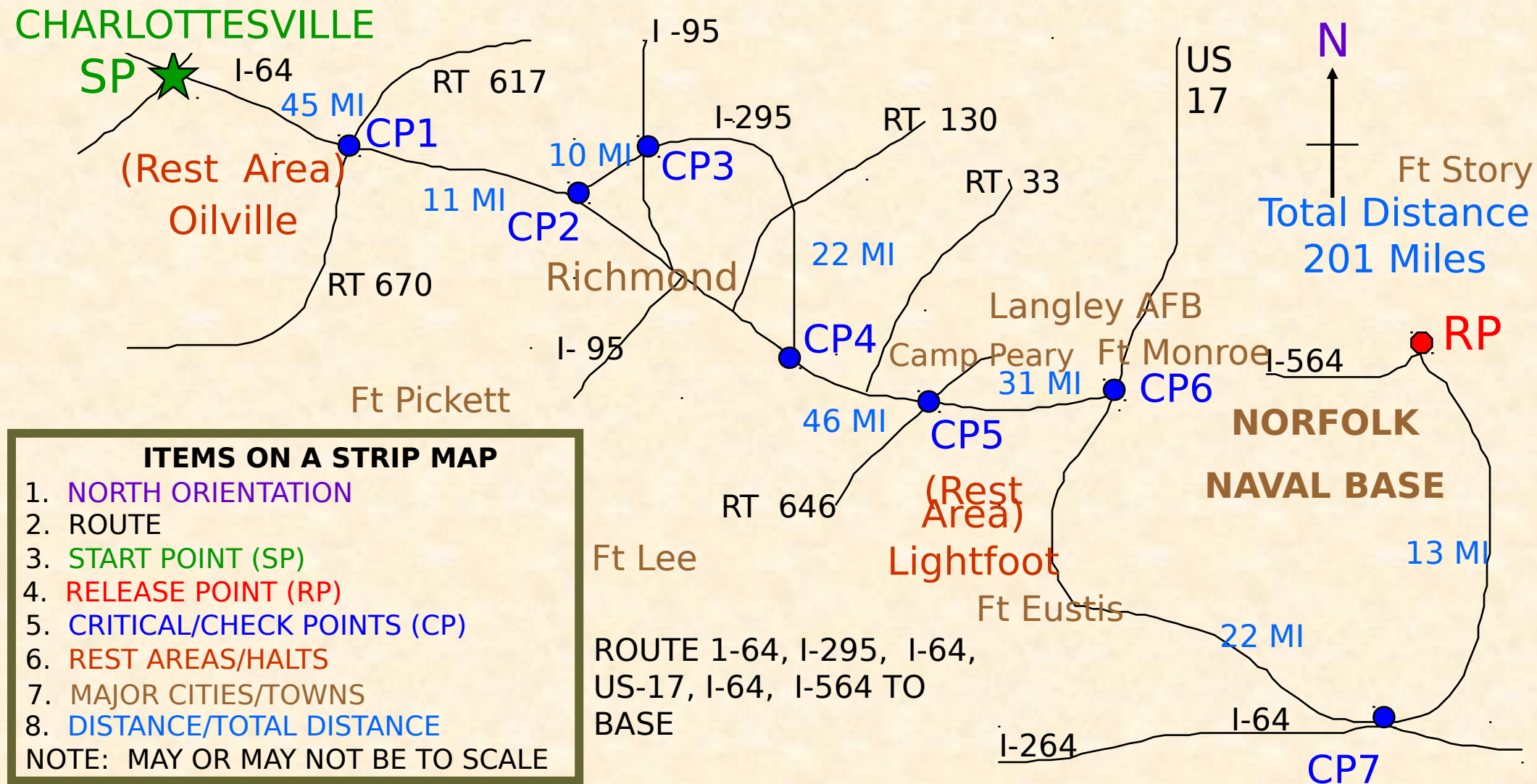
Routes

North orientation

GRAPHIC STRIP MAP

(Not to Scale)

Ref: FM 4-01.011, p.C-6



CONVOY ACTIVITIES



CONUS HWY OPERATIONS

UNIT MOTOR POOL

- Unit should complete as many preparations as possible at motor pool area
 - Check convoy documentation
 - Check radios and frequencies
 - Check vehicle maintenance
 - Check secondary loads
 - Check protective covers & lashing



CONUS HWY OPERATIONS

INSTALLATION STAGING AREA (ISA)

- Many installations provide a large area for convoy staging
- Where the deploying unit's equipment is inspected after it has departed their unit's motor pool
- Vehicles staged in convoy order
- Where final preparation and external checks are conducted

CONUS HWY OPERATIONS

ISA PRE-MOVEMENT COORDINATION

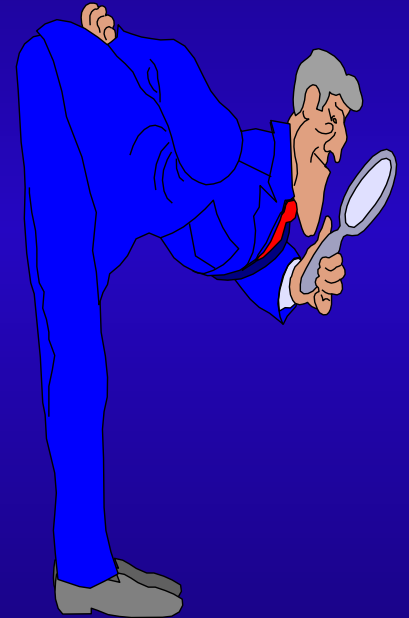
- UMC or Deployment Support Brigade personnel inspect the following:
 - Secondary loads for stowage, bracing, covers & lashing
 - Safety equipment and Basic Issue Items present
 - Vehicle weight
 - Maintenance, tires, fluids & leaks
 - HAZMAT stowage & documentation
 - Documentation & vehicle marking

CONUS HWY OPERATIONS

DRIVER PREPARATION

Checked for:

- Driver and assistant driver have a **valid operators license** and required **endorsement if carrying HAZMAT**
- Have enough **experience** to operate vehicle safely on public highways
- **Aware** of route and convoy speed/spacing
- **8 hours of rest within the 12 hours before** the convoy departs⁷⁰



CONUS HWY OPERATIONS

CONVOY COMMANDER'S BRIEFING

- Convoy organization and vehicle assignments
- Control measures (timings/speeds/spacing etc) and actions on (breakdown, separated from convoy etc)
- Distribute strip map
- See check list on page C-13/14 and sample briefing on page C-20/21

CONUS HWY OPERATIONS

ACCIDENTS!

Fatal accident when load was too high



Ref: FM 4-01.011, p.C-15

- Minimize effects and keep convoy moving
- Only vehicle immediately behind should stop and render assistance
- First aid
- Report accident to civilian police - do not move damaged vehicle until civil police investigation completed
- Recover vehicle if required
- ⁷²Complete accident report

CONUS HWY OPERATIONS

ENROUTE REPORTING

- During peacetime, convoys will not normally be required to report movement progress
- During mobilization and for selected exercises, special instructions incorporated into the CMO will direct the convoy commander to report to the appropriate SMCC upon departure, at selected locations enroute, and upon arrival



- Primary means of enroute reporting

SUMMARY



CONUS HWY OPERATIONS



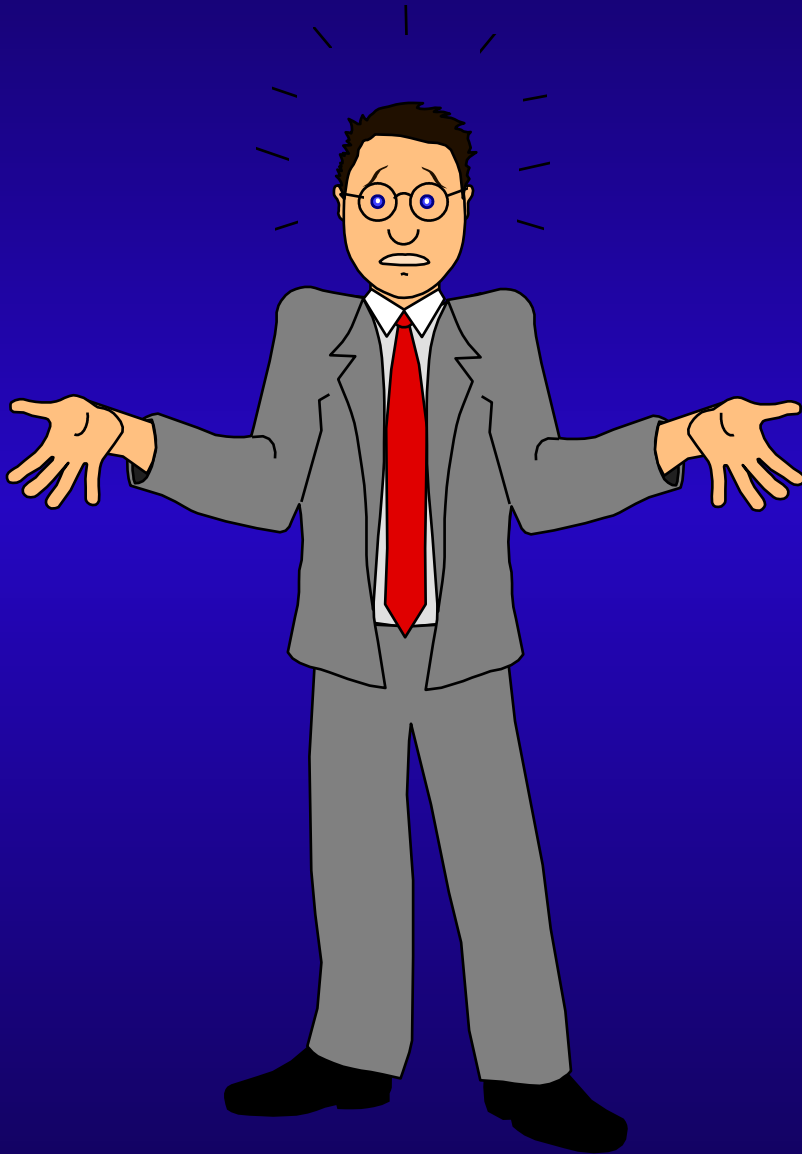
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LET'S REVIEW



CONUS HWY OPERATIONS





QUESTIONS
???

What's Coming